

FIG. 1 (SEQ ID NOS: 1 and 5)

1 GAGGTCCAGC TTCAGCAGTC TGGACCTGAC CTGGTGAAGC CTGGGGCTTC
 E V Q L Q Q S G P D L V K P G A S
 51 AGTGAAGATA TCCTGCAAGG CTTCTGGTTA CTCATTCACT GGCTACTACA
 V K I S C K A S G Y S F T G Y Y
 101 TGCACTGGGT GAAGCAGAGC CATGGAAAGA GCCTTGAGTG GATTGGACGT
 M H W V K Q S H G K S L E W I G R
 151 ATTAATCCTA ACAATGGTGT TACTCTCTAC AACCAGAAAT TCAAGGACAA
 I N P N N G V T L Y N Q K F K D K
 201 GGCCATATTA ACTGTAGACA AGTCATCCAC CACAGCCTAC ATGGAGCTCC
 A I L T V D K S S T T A Y M E L
 251 GCAGCCTGAC ATCTGAGGAC TCTGCGGTCT ATTACTGTGC AAGATCTACT
 R S L T S E D S A V Y Y C A R S T
 301 ATGATTACGA ACTATGTTAT GGACTACTGG GGTCAAGTAA CCTCAGTCAC
 M I T N Y V M D Y W G Q V T S V T
 351 CGTCTCCTCA GGTGGTGGTG GGAGCGGTGG TGGCGGCACT GGCGGCGGCG
 V S S G G G G S G G G G T G G G
 401 GATCTAGTAT TGTGATGACC CAGACTCCCA CATTCCTGCT TGTTTCAGCA
 G S S I V M T Q T P T F L L V S A
 451 GGAGACAGGG TTACCATAAC CTGCAAGGCC AGTCAGAGTG TGAGTAATGA
 C D R V T I T C K A S Q S V S N D
 501 TGTAGDTTGG TACCAACAGA AGCCAGGGCA GTCTCCTACA CTGCTCATAT
 V A W Y Q Q K P C Q S P T L L I
 551 CCTATACATC CAGTCGCTAC GCTGGAGTCC CTGATCGCTT CATTGGCAGT
 S Y T S S R Y A G V P D R F I G S
 601 GGATATGGGA CGGATTTCAC TTTCAACATC AGCACTTTGC AGGCTGAAGA
 G Y G T D F T F T I S T L Q A E D
 651 CCTGGCAGTT TATTTCTGTC AGCAAGATTA TAATTCTCCT CCGACGTTCC
 L A V Y F C Q Q D Y N S P P T F
 701 GTGGAGGCAC CAAGCTGGAA ATCAAACGG
 G G G T K L E I K R

FIG. 2 (SEQ ID NOS: 3 and 7)

ATGGGCCACA CACGGAGGCA GGGAACATCA CCATCCAAGT GTCCATACCT 50
 M G H T R R Q G T S P S K C P Y L

CAATTTCTTT CAGCTCTTGG TGCTGGCTGG TCTTTCTCAC TTCTGTTTCTGAG 100
 N F F Q L L V L A G L S H F C S

GTGTTATCCA CGTGACCAAG GAAGTGAAAG AAGTGGCAAC GCTGTCCTGT 150
 G V I H V T K E V K E V A T L S C

GGTCACAATG TTTCTGTTGA AGAGCTGGCA CAAACTCGCA TCTACTGGCA 200
 G H N V S V E E L A Q T R I Y W Q

AAAGGAGAAG AAAATGGTGC TGACTATGAT GTCTGGGGAC ATGAATATAT 250
 K E K K M V L T M M S G D M N I

GGCCCGAGTA CAAGAACCGG ACCATCTTTG ATATCACTAA TAACCTCTCC 300
 W P E Y K N R T I F D I T N N L S

ATTGTGATCC TGGCTCTGCG CCCATCTGAC GAGGGCACAT ACGAGTGTGT 350
 I V I L A L R P S D E G T Y E C V

TGTCTGAAG TATGAAAAAG ACGCTTTCAA GCGGGAACAC CTGGCTGAAG 400
 V L K Y E K D A F K R E H L A E

TGACGTTATC AGTCAAAGCT GACTTCCCTA CACCTAGTAT ATCTGACTTT 450
 V T L S V K A D F P T P S I S D F

GAAATTCCAA CTTCTAATAT TAGAAGGATA ATTTGCTCAA CCTCTGGAGG 500
 E T P T S N I R R I I C S T S G G

TTTTCCAGAG CCTCACCTCT CCTGGTTGGA AAATGGAGAA GAATTAAATG 550
 F P E P H L S W L F N G E E L N

CCATCAACAC AACAGTTTCC CAAGATCCTG AAAGTGAGCT CTATGCTGTT 600
 A I N T T V S Q D P E T F I Y A V

AGCAGCAAAC TGGATTTCAA TATGACAACC AACCACAGCT TCATGTGTCT 650
 S S K L D F N M T T N H S F M C L

CATCAAGTAT GGACATTTAA GAGTGAATCA GACCTTCAAC TGAATACAA 700
 I K Y G H L R V N Q T F N W N T

CCAAGCAAGA GCATTTTCCT GATGGAGGCG GGGGATCCGA GGTCCAGCTT 750
 T K Q E H F P D G G G G S E V Q L

CAGCAGTCTG GACCTGACCT GGTGAAGCCT GGGGCTTCAG TGAAGATATC	800
Q Q S G P D L V K P G A S V K I S	
CTGCAAGGCT TCTGGTACT CATTCACTGG CTA CTACATG CACTGGGTGA	850
C K A S G Y S F T G Y Y M H W V	
AGCAGAGCCA TGGAAAGAGC CTTGAGTGGA TTGGACGTAT TAATCCTAAC	900
K Q S H G K S L E W I G R I N P N	
AATGGTGTGA CTCTCTACAA CCAGAAATTC AAGGACAAGG CCATATTAAC	950
N G V T L Y N Q K F K D K A I L T	
TGTAGACAAG TCATCCACCA CAGCCTACAT GGAGCTCCGC AGCCTGACAT	1000
V D K S S T T A Y M E L R S L T	
CTGAGCACTC TGCGGTCTAT TACTGTGCAA GATCTACTAT GATTACGAAC	1050
S E D S A V Y Y C A R S T M I T N	
TATGTTATGG ACTACTGCCG TCAAGTAACC TCAGTCACCG TCTCCTCAGG	1100
Y V M D Y W G Q V T S V T V S S G	
TGGTGGTGGG AGCGGTGGTG GCGGCACTGC CCGCCGCGGA TCTAGTATTG	1150
G G G S G G G G T G G G G S S I	
TGATGACCCA GACTCCACA TTCCTGCTTG TTTCAGCAGG AGACACGCTT	1200
V M T Q T P T F L L V S A G D R V	
ACCATAACCT GCAAGGCCAG TCAGAGTGTG AGTAATGATG TAGCTTGGTA	1250
T I T C K A S Q S V S N D V A W Y	
CCAACAGAAG CCAGGGCAGT CTCCTACACT GCTCATATCC TATACATCCA	1300
Q Q K P G Q S P T L L I S Y T S	
GTGCTACGC TGGAGTCCCT GATCGCTTCA TTGGCAGTGG ATATGGGACG	1350
S R Y A G V P D R F I G S G Y G T	
GATTTCACTT TCACCATCAG CACTTTGCAG GCTGAAGACC TGGCAGTTTA	1400
D F T F T I S T L Q A E D L A V Y	
TTTCTGTCAG CAAGATTATA ATTCTCCTCC GACGTTCCGT GGAGGCACCA	1450
F C Q Q D Y N S P P T F G G G T	
AGCTGGAAAT CAAATAA	
K L E I K	

FIG. 2_{CONT'D}

1 ATGGGACTGA GTAACATTCT CTTTGTGATG GCCTTCCTGC TCTCTGGTGC
 M G L S N I L F V M A F L L S G A
 51 TGCTCCTCTG AAGATTCAAG CTTATTTCAA TGAGACTGCA GACCTGCCAT
 A P L K I Q A Y F N E T A D L P
 101 GCCAATTTGC AAACCTCTCAA AACCAAAGCC TGAGTGAGCT AGTAGTATTT
 C Q F A N S Q N Q S L S E L V V F
 151 TGGCAGGACC AGGAAAACCTT GGTTCCTGAAT GAGGTATACT TAGGCAAAGA
 W Q D Q E N L V L N E V Y L G K E
 201 GAAATTTGAC AGTGTTTCATT CCAAGTATAT GGGCCGCACA AGTTTTTGATT
 K F D S V H S K Y M G R T S F D
 251 CGGACAGTTG GACCCTGAGA CTTCACAATC TTCAGATCAA GGACAAGGGC
 S D S W T L R L H N L Q I K D K G
 301 TTGTATCAAT GTATCATCCA TCACAAAAAG CCCACAGGAA TGATTTCGCAT
 L Y Q C I I H H K K P T G M I R I
 351 CCACCAGATG AATTCTGAAC TGTCAGTGCT TGCTAACTTC AGTCAACCTG
 H Q M N S E L S V L A N F S Q P
 401 AAATAGTACC AATTTCTAAT ATAACAGAAA ATGTGTACAT AAATTTGACC
 E I V P I S N I T E N V Y I N L T
 451 TGCTCATCTA TACACGGTTA CCCAGAACCT AAGAAGATGA GTGTTTTGCT
 C S S I H G Y P E P K K M S V L L
 501 AAGAACCAAG AATTCAACTA TCGAGTATGA TGGTATTATG CAGAAATCTC
 R T K N S T I E Y D G I M Q K S
 551 AAGATAATGT CACAGAACTG TACGACGTTT CCATCAGCTT GTCTGTTTCA
 Q D N V T E L Y D V S I S L S V S
 601 TTCCCTGATG TTACGAGCAA TATGACCATC TTCTGTATTG TGGAAACTGA
 F P D V T S N M T I F C I L E T D
 651 CAAGACGCGG CTTTTATCTT CACCTTTCTC TATAGAGCTT GAGGACCCTC
 K T R L L S S P F S I E L E D P
 701 AGCCTCCCCC AGACCACATT CCTGGAGGCG GGGGATCC
 Q P P P D H I P G G G G S

FIG. 4 (SEQ ID NOS: 9 and 10)

FIG. 5 (SEQ ID NO: 11)

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atggcttgca attgtcagtt gatgcaggat acaccactcc tcaagtttcc atgtccaagg 60
ctcattcttc tctttgtgct gctgattcgt ctttcacaag tgtcttcaga tgttgatgaa 120
caactgtcca agtcagtgaag agataaggta ttgctgcctt gccgttacaa ctctccgcat 180
gaagatgagt ctgaagaccg aatctactgg caaaaacatg acaaagtggg gctgtctgtc 240
attgctggga aactaaaagt gtggcccagag tataagaacc ggactttata tgacaacact 300
acctactctc ttatcatcct gggcctgggc ctttcagacc ggggcacata cagctgtgtc 360
gttcaaaaga aggaaaqaqg aacqtatgaa gttaaacact tggctttagt aaagt.tgt.c 420
atcaaagctg acttctctac ccccaacata actgagtctg gaaacccatc tgcagacact 480
aaaaggatta cctgctttgc ttccgggggt ttcccaaagc ctgctttctc ttggttggaa 540
aatggaagag aattacctgg catcaatacg acaatttccc aggatcctga atctgaattg 600
tacaccatta gtagecact agatttcaat acgactcgca accacacccat taagtgtctc 660
attaatatg gagatgctca cgtgtcagag gacttcacct gggaaaaacc cccagaagac 720
cctcctgata gcaagcccgg ggggtggggg agcgggtggg gcggcagtg cgggcgcgga 780
actagttagg tccagcttca gcagctctga cctgacctgg tgaagcctgg ggcttcagtg 840
aayalalcccl gcaaggcttc tggttactca ttcactggct actacatgca ctgggtgaag 900
cagagccatg gaaagagcct tgagtggatt ggacgtatta atcctaacaa tgggtgttact 960
ctctacaacc agaaattcaa ggacaaggcc atattaactg tagacaagtc atccaccaca 1020
gcctacatgg agctccgcag cctgacatct gaggactctg cgggtctatta ctgtqcaaga 1080
tctactatga ttacgaacta tgttatggac tactgggggc aagtaacttc agtcaccgtc 1140
tcttcagggtg gtgggtgggag cgggtggggc ggcactggcg gcggcggtac tagtattgtg 1200
atgacccaga ctcccacatt cctgcttgtt tcagcaggag acagggttac cataacctgc 1260
aaggccagtc agagtgtgag taatgatgta gcttgggtacc aacagaagcc agggcagtc 1320
cctacactgc tcatatccta tacatccagt cgctacgtg gagtccctga tcgcttcatt 1380
ggcagtgat atgggacgga tttcactttc accatcagca ctttgaggc tgaagacctg 1440
gcagtttatt tctgtcagca agattataat tctcctccga cgttcgggtg aggcaccaag 1500
ctggaaatca aacggtaa 1518

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7/24

FIG. 6 (SEQ ID NOS: 4 and 8)

Leader / 5T4 scFv / HlgG DNA and deduced protein sequence

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CTCGAGCCACCATGGGATGGAGCTGTATCATCTCTTCTTGGTAGCAACAGCTACAGGTGCCACTCCGAGGTCCAGCTG
M G W S C I I L F L V A T A T G V H S E V Q L
CAGCAGTCTGGACCTGACCTGGTGAAGCCTGGGGCTTCAGTGAAGATATCCTGCAAGGCTTCTGGTTACTCATTCACTGG
Q Q S G P D L V K P G A S V K I S C K A S G Y S F T
CTACTACATGCACTGGGTGAAGCAGACCCATGGAAGAGCCTTGAAGTGGATTGGACGTATTAATCCTAACAAATGGTGTTA
G Y Y M H W V K Q S H G K S L E W I G R I N P N N G V
CTCTCTACAACAGAAATTCAAGGACAAGGCCATATTAAGTGTAGACAAGTCATCCACCACAGCCTACATGGAGCTCCGC
T L Y N Q K F K D K A I L T V D K S S T T A Y M E L R
AGCCTGACATCTGAGGACTCTGCGGTCTATTACTGTGCAAGATCTACTATGATTACGAATATGTTATGGACTACTGGGG
S L T S E D S A V Y Y C A R S T M I T N Y V M D Y W
TCAAGTAATTCAGTCAACCTCTCTTCAGGTGGTGGTGGGAGCGGTGGTGGCGGCACTGGCGGCGGCGGATCTAGTATTG
G Q V T S V T V S S G G G G S G G G G T G G G G S S I
TGATGACCCAGACTCCCACATTCTGCTTGTTCAGCAGGAGACAGGGTTACCATAACCTGCAAGGCCAGTCAGAGTGTG
V M T Q T P T F L L V S A G D R V T I T C K A S Q S V
AGTAATGATGTAGCTTGGTACCAACAGAAGCCAGGGCAGTCTCCTACACTGCTCATATCCTATACATCCAGTCGCTACGC
S N D V A W Y Q Q K P G Q S P T L L I S Y T S S R Y
TCCACTCCCTCATCGCTTCATTGGCAGTGGATATGGGACGGATTTCACITTCACCATCAGCACTTTGACGGCTGAAGACC
A G V P D R F I G S G Y G T D F T F T I S T L Q A E D
TGGCAGTTTATTTCTGTGACGAAGATTATAATTCTCCTCCGACGTTCCGTTGGAGGCACCAAGCTTGAAATCAAACGGGCC
L A V Y F C Q Q D Y N S P P T F G G G T K L E I K R A
TCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCTCCTCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCT
S T K G P S V F P L A P S S K S T S G G T A A L G C
GGTCAAGGACTACTTCCCGAACCCTGTGACGCTGTCTGGAAGTACGGCCCTCACCACGGCCCTGCACACCTTCCCCC
L V K D Y F P E P V T V S W N S G A L T S G V H T F P
CTGTCTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTAC
A V L Q S S G L Y S L S S V V T V P S S S L G T Q T Y
ATCTGCAACGTGAATCACAAGCCAGCAACACCAAGGTGGACAAGAAAGTTGAGCCCAATCTTGTGACAAAACCTCACAC
I C N V N H K P S N T K V D K K V E P K S C D K T H
ATGCCACCGTGCCAGCACCTGAACTCCTGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACCCCTCA
T C P P C P A P E L L G G P S V F L F P P K P K D T L
TGATCTCCCGACCCCTGAGGTACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTAC
M I S R T P E V T C V V V D V S H E D P E V K F N W Y
GTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGT
V D G V E V H N A K T K P R E E Q Y N S T Y R V V S
CCTCACCGTCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGAAGGTCTCCAACAAAGCCCTCCAGCCCCCA
V L T V L H Q U W L N G K E Y K C K V S N K A L P A P
TCGAGAAACCATCTCCAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCTGCCCCCATCCCGGGATGAGCTG
I E K T I S K A K G Q P R E P Q V Y T L P P S R D E M
ACCAAGAACCAGGTGACCTGACCTGCCTGGTCAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGG
T K N Q V S L T C L V K G F Y P S D I A V E W E S N
GCAGCCGGAGAACAACTACAAGACCACGCTCCCGTGTGGACTCCGACGGCTCCTTCTTCTCTATAGCAAGCTCACCG
G Q P E N N Y K T T P P V L D E D G C F F L Y S K L T
TGACAAGAGCAGGTGGCAGCAGGGGAACGCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAG
V D K S R W Q Q G N V F S C S V M H E A L H N H Y T Q
AAGAGCTCTCCCTGTCCCGGGTAAATGACTCGAG
K S L S L S P G K
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FIG. 7 (SEQ ID NO: 12)

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ctcgagccac catgggatgg agctgtatca tectcttctt ggtagcaaca gctacaggtg 60
tccactccga ggtccagctg cagcagtctg gacctgacct ggtgaagcct ggggcttcag 120
tgaagatata ctgcaaggct tctggttact cttactactg ctactacatg cactgggtga 180
agcagagcca tggaaagagc cttgagtgga ttggacglaa laalcculaac aatggtgtta 240
ctctctacaa ccagaaattc aaggacaagg ccatattaac tgtagacaag tcatccacca 300
cagcctacat ggagctccgc agcctgacat ctgaggactc tgcggtctat tactgtgcaa 360
gatctactat gattacgaac tatgttatgg actactgggg tcaagtaact tcagtcaccg 420
tctcttcagg tgggtggggg agcgggtggg gcggcactgg cggcggcgga tctagtattg 480
tgatgacca gactcccaca ttctgtcttg tttagcagg agacagggtt accataacct 540
gcaaggccag tcagagtgtg agtaatgatg tagcttggtg ccaacagaag ccaggggcagt 600
ctcctacact gctcatatcc tatacatcca qtcqctacgc tggagtccct gatcgcttca 660
ttggcagtg atatgggacg gatttcaact taccatcag cactttgcag gctgaagacc 720
tggtcagttta tttctgtcag caagattata attctcctcc gacgttcggt ggaggcacca 780
agcttgaaat caaacggggc tccacacaga gccatccgtt ctcccccttg acccgctgct 840
gcaaaaaacat tccctccaat gccacctccg tgaactctgg ctgcctggcc acgggctact 900
tcccgaggcc ggtgatggtg acctgggaca caggctccct caacgggaca actatgacct 960
taccagccac caccctcacg ctctctggtc actatgccac catcagcttg ctgacctgtt 1020
cgggtgcgtg ggccaagcag atgttcacct gccgtgtggc acacactcca tcgtccacag 1080
atlyyylcy caaaaaaac tttagcgtct gctccaggga ctccaccccg cccaccgtga 1140
agatcttaca gtcgtctctg gacggcgggc ggcacttccc cccgaccatc cagctcctgt 1200
gctctgtctc tgggtacacc ccagggacta tcaacatcac ctggctggag gacgggcagg 1260
tcattggact ggacttgctc accgcctcta ccacgcagga ggggtgagctg gctccacac 1320
aaagcgagct caccctcagc cagaagcact ggctgtcaga ccgcacctac acctgccagg 1380
tcacctatca aggtcacacc tttgaggaca gcaccaagaa gtgtgcagat tccaaccoga 1440
gaggggtgag cgcctacctg agcgggcccc gcccgttcga cctgttcacg cgcaagtccg 1500
ccacgatcac ctgtctgttg gtggacctgg caccacgcaa ggggacctg aacctgacct 1560
gggtcccggc cagtgggaag cctgtgaacc actccaccag aaaggaggag aagcagcgca 1620
atggcacgtt aaccgtcacg tccacctgcg cgggtgggac ccgagactgg atcgaggggg 1680
agacctacca gtgcagggtg acccaacccc acctgcccag ggccctcatg cgggtccacg 1740
ccaagaccag cggcccgcgt gctgccccgg aagtcclaly ylllycyacy ccyyaglygc 1800
cggggagccg ggacaagcgc accctcgcct gctgatcca gaacttcag cctgaggaca 1860
tctcggtgca gtggctgcac aacgaggtgc agtccccgga cgcccggcac agcacgacgc 1920
agccccgcaa gaccaagggc tccggcttct tcgtcttcag ccgcctggag gtgaccaggg 1980
ccgaatggga gcagaaagat gagtccatct ccgtgagct ccatgaggca gcgagcccct 2040
cacagaccgt ccagcgagcg gtgtctgtaa atccccgtaa atgagagctc 2090

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FIG. 8 (SEQ ID NO: 13)

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atggcttgca attgtcagtt gatgcaggat acaccactcc tcaagtttcc atgtccaagg 60
ctcattcttc tctttgtgct gctgattcgt ctttcacaag tgtcttcaga tgttgatgaa 120
caactgtcca agtcagtgaa agataaggta ttgctgcctt gccgttacaa ctctccgcat 180
gaagatgagt ctgaagaccg aatctactgg caaaaacatg acaaagtggg gctgtctgtc 240
attgctggga aactaaaagt gtggcccag tataagaacc ggactttata tgacaacact 300
acctactctc ttatcatcct gggcctggtc ctttcagacc ggggcacata cagctgtgtc 360
gttcaaaaaga aggaagagg aacgtatgaa gttaaacact tggttttagt aaagtgttcc 420
atcaaagctg acttctctac ccccaacata actgagctctg gaaacccatc tgcagacact 480
aaaaggatta cctgctttgc ttccgggggt tcccaaaagc ctgccttctc ttggttgaa 540
aatggaagag aattacctgg catcaatacg acaatttccc aggatcctga atctgaattg 600
tacaccatta gtacccaact agatttcaal acyaulcyca accacacaa laaglytctc 660
attaaatatg gagatgctca cgtgtcagag gacttcacct gggaaaaacc cccagaagac 720
cctcctgata gcaagcccgg ggggtggggg agcgggtggg gcggcagtg cggcggcgga 780
actagtaata gtgactctga atgtcccctg tcccacgatg ggtactgcct ccatgatggg 840
gtgtgcatgt atattgaagc attggacaag tatgcatgca actgtgttgt tggctacatc 900
ggggagcgat gtcagtaccg agacctgaag tgggtgggaa tgcgc 945

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FIG. 20 (SEQ ID NOs: 35 and 36)
pKLink - the (Gly₄Ser)₃ linker in pBluescript II SK (pBS II)

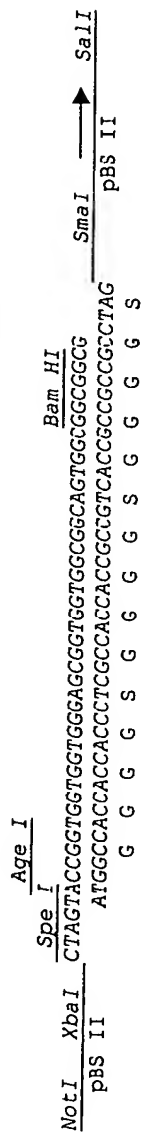
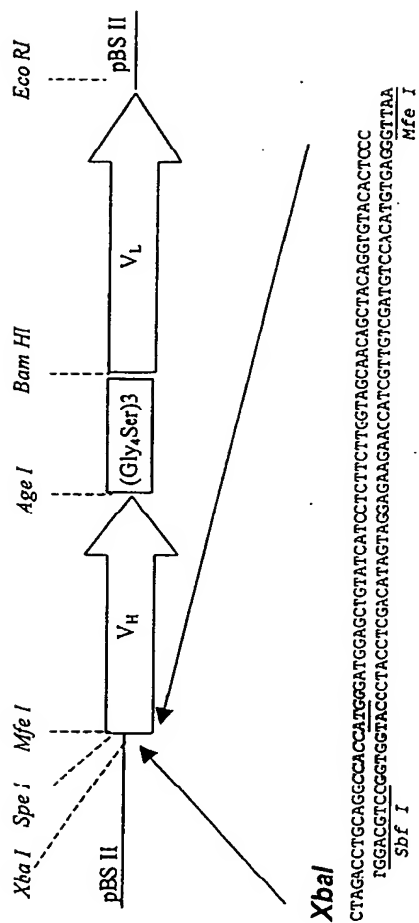


FIG. 21 (SEQ ID NO: 37)
An scFv and leader sequence in pBSII



XbaI

CTAGACCTCCAGGCCACCATGGGATGGAGCTGTATCATCTCTTCTTGGTACACACAGTACAGGTACACTCC
TGGACGTCGGGTGTACCTACCTACGACATAGTAGSAGAGAACCATCGTTGTGATGTCCACATGTGAGGTTAA
Sbf I Mfe I

FIG. 26 (SEQ ID NOS: 14 and 15)

Canine 5T4 Coding Sequence

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ATGCCTGGGGGTGCTCCCGGGGCCCCGCGCGGGGACGGGCGGTTGCGGCTGGCGCGGCTGGCGCTGGTGCTCCTGGG 80
M P G G C S R G P A A G D G R L R L A R L A L V L L

CTGGGTCTCCTCGTCCTCGCTCACCTCCTGGGCGCCCTCCGCGCGCGCCTCCACGTCGCGCGCGCCTCCGCGGCGTCCG 160
G W V S S S S L T S W A P S A A A S T S P P A S A A S

CCCCGCCCCGCTGCGGGGCCAGTGCCCCCAGCCTTGCGAGTGCTCGGAGGCGGCGCGCACGGTCAAGTGCGTTAACCGC 240
A P P P L P G Q C P Q P C E C S E A A R T V K C V N R

AACCTGACCGAGGTGCCCGGGACCTGCCCCCTACGTGCGCAACCTCTTCTCAGGGCAACCAGCTGGCGGTGCTGCC 320
N L T E V P A D L P Y V R N L F L T G N Q L A V L

CCCCGCGCCTTCGCCCGCGCGCGCGCTGGCCGAGCTGGCCGCGCTCAACCTGAGCGGCAGCAGCTGCGGGAGGTGT 400
P P G A F A R R P P L A E L A A L N L S G S S L R E V

GCGCGGCGCCTTCGAGCACCTGCCAGCCTGCGCCAGCTCGACCTCAGCCACAACCCGCTGGGCAACCTCAGCGCCTTC 480
C A G A F E H L P S L R Q L D L S H N P L G N L S A F

GCCTTCGCGGGCAGCGACGCCAGCGCTCGGGGCCCCAGCCCCCTGGTGGAGCTGATGCTGAACCACATCGTCCCCCGCA 560
A F A G S D A S R S G P S P L V E L M L N H I V P P

CGACCGGCGGCAGAACCGGAGCTTCGAGGGCATGGTGGCGGCTGCCCTCCGAGCGGGCGCGCGCTTCGCGGGCTGCAGT 640
D D R R Q N R S F E G M V A A A L R A G R A L R G L O

GCCTGGAGCTGGCCGGCAACCGCTTCTCTACTTGCCCTCGCGAGCTCCTGGCCAGCTACCCGGCCTCCGGCACCTGGAC 720
C L E L A G N R F L Y L P R D V L A Q L P G L R H L D

CTGCGCAACAACTCCCTGGTGAGCCTCACCTACGTGTCTTCCGCAACCTGACGCACTTGGAGAGCCTCCACCTGGAGGA 800
L R N N S L V S L T Y V S F R N L T H L E S L H L E

CAACGCCCTCAAGGTCCTTCACAACGCCACCCTGGCGGAGCTGCAGAGCCTGCCCCACGTCCGGGTCTTCTGGACAACA 880
D N A L K V L H N A T L A E L Q S L P H V R V F L D N

ACCCCTGGGTCTGCGATTGTACATGGCAGACATGGTGGCCTGGCTCAAGGAGACAGAGGTGGTGCCGGGCAAAGCCGGG 960
N P W V C D C H M A D M V A W L K E T E V V P G K A G

CTCACCTGTGCATTCCCGGAGAAAATGAGGAATCGGGCCCTCTTGGAACTCAACAGCTCCACCTGGACTGTGACCCTAT 1040
L T C A F P E K M R N R A L L E L N S S H L D C D P

CCTCCCTCCATCCCTGCAGACTTCTTATGTCTTCTAGGTATTGTCTTAGCCCTGATAGGCGCATCTTCTACTGGTTT 1120
I L P P S L Q T S Y V F L G I V L A L I G A I F L L V

TGTATTTGAACCGCAAGGGGATAAAGAAGTGGATGCATAACATCAGAGATGCCTGCAGGGATCACATGGAAGGGTATCAC 1200
L Y L N R K G I K K W M H N I R D A C R D H M E G Y H

TACAGATACGAAATCAATGCAGACCCCAGGTTAACAAACCTCAGTTCCAATTGCGATGTCTGA 1263
Y R Y E I N A D P R L T N L S S N S D V

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